(FILE 'HOME' ENTERED AT 23:51:58 ON 20 JUL 2003)

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FILE 'CAPLUS' ENTERED AT 00:08:14 ON 21 JUL 2003
          22744 S (CATALYTIC (3W) HYDROGENATION) / IA
L1
L2
           4542 S (RANEY(2W)CATALYST#)/IA
            109 S (HOLLOW(3W)CATALYST#)/IA
L3
              2 S L1 AND L3
L4
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ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:539639 CAPLUS

DOCUMENT NUMBER: 137:95532

TITLE: Production of substituted amines by hydrogenation of

organic nitro compounds in the presence of Raney-type

catalysts in the form of hollow bodies

INVENTOR(S): Ostgard, Daniel; Berweiler, Monika; Roeder, Stefan

PATENT ASSIGNEE(S): Degussa Ag, Germany SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                         KIND DATE
                                                     APPLICATION NO. DATE
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                                                      ______
      WO 2002055476 A1 20020718
                                                     WO 2002-EP165 20020110
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
                CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
                BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      DE 10101647
                           A1
                                   20020718
                                                   DE 2001-10101647 20010116
      US 2002151751
                            A1
                                   20021017
                                                      US 2002-46537
                                                                            20020116
                                                   DE 2001-10101647 A 20010116
PRIORITY APPLN. INFO.:
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OTHER SOURCE(S): MARPAT 137:95532

Substituted amines are produced by catalytic

hydrogenation of substituted org. nitro compds. with hydrogen or hydrogen-contg. gas mixts. in the presence of a hydrogenation catalyst which is a shaped Raney catalyst in the form of hollow bodies, granules or tablets. Nickel, cobalt, copper, iron, platinum, palladium or ruthenium are preferably used as catalytically active constituents. Thus, a catalyst was prepd. by coating polystyrene spheres (2 mm in diam.) with the suspensions contg. nickel-aluminum alloy powder and nickel powder stabilized with 2% poly(vinyl alc.). These coated spheres were heated to 500.degree. to burn out polystyrene, and then Ni-Al hollow spheres were sintered at 800.degree.. After activation with 20% sodium hydroxide at 80.degree., the hollow catalyst spheres were used for

hydrogenation of dinitrotoluene to produce toluenediamine.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:504736 CAPLUS

DOCUMENT NUMBER: 137:64898

TITLE: Production of alcohols by hydrogenation of carbonyl compounds using Raney-type catalysts in the form of

hollow spheres

INVENTOR(S):

Ostgard, Daniel; Berweiler, Monika; Roeder, Stefan

PATENT ASSIGNEE(S): SOURCE:

Degussa A.-G., Germany PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                                             KIND DATE
                                                                                        APPLICATION NO. DATE
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          WO 2002051779
                                               Α2
                                                          20020704
                                                                                         WO 2001-EP15264 20011221
          WO 2002051779
                                              АЗ
                                                          20030306
                  W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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          DE 10065029
                                               A1
                                                          20020704
                                                                                        DE 2000-10065029 20001223
          US 6486366
                                               В1
                                                          20021126
                                                                                        US 2001-24487
                                                                                                                             20011221
PRIORITY APPLN. INFO.:
                                                                                   DE 2000-10065029 A
                                                                                                                            20001223
                                                                                  WO 2001-EP12567 W
                                                                                                                           20011031
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OTHER SOURCE(S): MARPAT 137:64898

Alcs. are produced by catalytic hydrogenation of carbonyl compds. with hydrogen or gases that contain hydrogen in the presence of a Raney-type hydrogenation catalyst, where the catalyst is utilized in the form of hollow bodies. Nickel, cobalt, copper, iron, platinum, palladium or ruthenium are preferably used as catalytically active constituents. Thus, a catalyst was prepd. by coating polystyrene spheres (2 mm in diam.) with the suspensions contg. nickel-aluminum alloy powder and nickel powder stabilized with 2% poly(vinyl alc.). These coated spheres were heated to 500.degree. to burn out polystyrene, and then Ni-Al hollow spheres were sintered at 800.degree. After activation with 20% sodium hydroxide at 80.degree., the hollow catalyst spheres were used for hydrogenation of glucose to produce

sorbitol.